

Detection Method

Quadratic blocks:
• Whale domination

Test Grid detects:
• Unengaged
• Bots

γ detects:
• Sybil
• Bribery
• Coordination

Attack Vectors

Sybil Attack
(Fake Identities)

Coordinated
Manipulation

Bribery
(Vote Buying)

Bot
Voting

Unengaged
Voting

Whale
Domination

Replay
Attack

Entropy
Exhaustion

Defense Mechanisms

Credential
Validation

Coherence Gate
($\gamma > 50$)

Engagement
Verification

Quadratic
Costs

Quantum
Signature

Entropy
Pool Check

BLOCKED

invalid
credential

low variance
detected

statistical
anomaly

correlated
entropy

patterned
behavior

fails
engagement

fails
verification

n^2 cost
scaling

nonce
validation

pool
exhausted